

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the subject application.

1. (Currently Amended) Apparatus for use with a subject, comprising:

a catheter having a longitudinal axis and having a distal portion; [[and]]

an ultrasound array arranged to the distal portion of the catheter, the ultrasound array comprising between about 32 and 64 a plurality of ultrasound transducers, the plurality of ultrasound transducers being circumferentially arranged around the longitudinal axis and on a plane orthogonal to the longitudinal axis, at the distal portion, and adapted to operate in a phased array mode to apply ablating energy to tissue of the subject located in a range of azimuths, with respect to the longitudinal axis, that is less than 360 degrees, including a range of azimuths between 180 and 359 degrees;

wherein when the catheter is threaded through the venous system and disposed in a vicinity of an ostium of a pulmonary vein of the subject, the range of azimuths is sufficiently smaller than 360 degrees to avoid inducing a deficit in a phrenic nerve of the subject

a detection functionality adapted to determine a portion of the tissue of the subject that is not to be targeted by the ablating energy and a next successive portion of the tissue of the subject to be ablated; and

a controlling functionality adapted to control the ultrasound array to set the range of azimuths responsive to the determination of the portion of the tissue that is not to be targeted and the next successive portion of the tissue of the subject to be ablated as determined by the detection functionality.

2-6. (Cancelled)

7. (Currently Amended) The apparatus according to claim [[5]] 1, wherein the detection functionality comprises an ultrasound transducer.

8. (Currently Amended) The apparatus according to claim [[5]] 1, wherein the detection functionality comprises at least a portion of the ultrasound array.

9. (Currently Amended) The apparatus according to claim [[5]] 1, wherein the detection functionality comprises imaging functionality.

10. (Currently Amended) The apparatus according to claim [[5]] 1, wherein the detection functionality is adapted to be fixed to the distal portion of the catheter.

11. (Currently Amended) The apparatus according to claim [[5]] 1, wherein the detection functionality is adapted to operate external to a body of the subject.

12-22. (Cancelled)